DOCUMENT RESUME

ED 253 615 UD 024 061

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TITLE	Racial Differentiation in Urban Communities.
SPONS AGENCY	Russell Sage Foundation, New York, N.Y.
PUB DATE	Aug 84
NOTE	16p.; Paper presented to the American Sociological Association (San Antonio, Texas, August 1984). Research reported in this paper is part of the 1980 Census Monograph Program.
PUB TYPE	Statistical Data (110) -- Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	American Indians; Asian Americans; Blacks; Demography; *Ethnic Distribution; Ethnic Groups; Hispanic Americans; *Metropolitan Areas; *Minority Groups; Population Trends; *Poverty; *Racial Composition; *Racial Segregation; Residential Patterns; Whites

ABSTRACT

Using the 1980 census's independent measures of race, Spanish origin, nativity, and ancestry, this paper describes racial differentiation and segregation in 21 metropolitan areas, comparing it with ethnic group segregation, and to other demographic and housing characteristics. Special attention is given to the interplay of race and poverty. Examination of statistics dealing with Blacks, Asian Americans, American Indians, Hispanics, and Whites reveals that the races are sharply separated in the American metropolis, at a level of segregation outstripping most other attributes (dealt with here under four headings: socioeconomic status, life cycle, ethnicity, and housing) except for the physical characteristics of the housing stock. Further, racial segregation serves to reinforce the separation of the poverty population, highlighting the degree to which poor members of minority groups are removed geographically as well as socially from the mainstream. Following the narrative portion of this report, which combines technical information with broad summarization of findings, three statistical tables are presented: (1) "Dissimilarity for Race, Spanish Origin, and Nativity"; (2) "Dissimilarity for Single and Multiple Ancestry"; and (3) "Dissimilarity for Poverty Status by Race." Two charts are also included: "Mean Index of Dissimilarity for Race, Spanish Origin, and Ancestry" and "Mean Entropy Statistic for Selected Characteristics." (KH)

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Racial Differentiation in Urban Communities

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UD024061

Paper prepared for presentation to the American Sociological Association, August 1984, San Antonio, Texas.

The research reported in this paper is part of the 1980 Census Monograph Program. Support of the Russell Sage Foundation is gratefully acknowledged. Extracts of 1980 census data were provided to the author by Donnelley Marketing Services.

One of the ways we can comprehend racial differentiation in the urban community is to look directly at segregation. We know that ecological differentiation in the city (or metropolis) proceeds along a variety of dimensions, including housing characteristics, socioeconomic status, life cycle and race-ethnicity. To the extent that differentiation is manifest there will be uneveness in the distribution of these characteristics, an uneveness that can be detected as segregation.

We approach the concept of race broadly and comparatively using 1980 census tabulations for 21 metropolitan areas. One of the unique features of the 1980 census is that Race, Spanish Origin, Nativity, and Ancestry were all measured independently. Thus, while it is common in vernacular conversation to treat race or ethnicity unidimensionally or dichotomously, we have the opportunity to subject racial and ethnic differentiation to more detailed scrutiny. In this paper we not only look at race, but compare racial segregation to levels for other ethnic groups, and to other demographic and housing characteristics. We also give special attention to the interplay of race and poverty. Our data comes from the 1980 summary tape files 1 and 3 (complete count and sample data respectively) for 21 Standard Metropolitan Statistical Areas, or SMSAs.

Segregation by race and ethnicity in the metropolis has always attracted the most attention from scholars and policymakers. Values of the index of dissimilarity have been calculated repeatedly for cities and metropolitan areas since 1940. In table 1 we can observe comparative levels of segregation for race, spanish origin, and nativity, all of which were separately asked in the 1980 census. Racial segregation

continues to sharply divide the metropolis. The index of dissimilarity for blacks (vs. all other racial groups) in our 21 cities goes no lower than 40 in Bangor (less than one percent black metropolitanwide), and reaches up to 86 in the Chicago SMSA, which has traditionally recorded one of the highest levels of segregation in the nation. Taking the mean value as indicative of a typical value, over two-thirds of the members of one racial group would have to change residence in order for the black-nonblack ratio to be equal in every neighborhood.

Three other racial groups, American Indians, Asians, and "others" are also examined. The remaining excluded group is that of whites. The Indian and Asian populations, which vary greatly across the nation, exhibit only about half the level of segregation of blacks. The level of Indian segregation is highest in Bangor, where the Native American population in substantial, and one census tract is coterminous with a Reservation. Most SMSAs have a value of D for the Asian population of between 35 and 45. The cities of the West Coast, which have substantial Asian minority populations, do not have especially high levels of segregation; rather the largest values of D are found in Chicago, New Orleans and Boston.

The "other races" population is difficult to characterize, and thus its value of D is correspondingly difficult to interpret. The variation in D for this group across SMSAs is large, suggesting that we are picking up inconsistencies of classification as well as the "true" level of segregation of individuals who did fall into the white, black, Indian and Asian categories. Since the census was self enumerated, individuals could choose their racial identity as they wished, and many persons, particularly those of Spanish heritage, checked "other" on this census

item. The Census Bureau refrained from reclassifying many of these individuals. To the extent that such individuals are randomly distributed within their own population and such behavior would tend to depress the calculated value of D for "others" and all the remaining four groups.

Hispanics are much less segregated than blacks according to D, but there is fairly wide dispersion among the several SMSAs. (Interestingly the rank order correlation with the level of SMSA racial segregation is nearly zero.) There seems to be little evidence that cities with large Hispanic populations show especially high or low levels of segregation. The sixth column of Table 1 reports the index of dissimilarity for racial segregation within the Hispanic population, a calculation made possible by a cross tabulation of the two complete count items. Even within the population that identifies itself as Hispanic, blacks are highly segregated from nonblacks. The value of D is nearly as large as that for the black population alone.

A final calculation of Table 1 is that for Nativity. We report the value of D for the foreign born vs. native-born population, picking up in part streams of immigration to these metropolitan areas. We see that under this broad definition immigrants are less segregated than any other group in the table. In Chicago, long known as a gateway city in the heartland 40 percent of the foreign born would have to relocate to eliminate unevenness, but in eight SMSAs D is 25 or under.

In the 1980 census every person who received a sample (long form) questionnaire was asked to identify his or her ancestry, in open-ended form. In previous censuses only the first and second generations of an origin group could be identified. In Table 2 we present the index of

dissimilarity for the six groups which are reported by the Census Bureau in its (separate) single and multiple ancestry tabulations. (Although all persons identify an ancestry, special breakdowns of the black, Asian and Hispanic populations are not made, but these are identified on certain detailed tabluations for geographic areas, and on the individual records of the public use microdata samples.

In most instances the level of segregation by ancestry is lower than that seen in Table 1 for race and Spanish origin. Not surprisingly levels of segregation for the six multiple ancestry identifications are one-third to one-half those of the corresponding single ancestry group. It is interesting to note that the level of segregation for the foreign born population falls within the range of the single ancestry population groups, even though the latter may be of any generation.

Chart 1 summarizes the levels of segregation observed for the various classifications, taking the mean across the 21 SMSAs. What is strikingly apparent is the much higher level of segregation of blacks (even blacks of Spanish origin) when compared to all other population groups. The other racial classifications are intermediate with values D in the vicinity of 35-40. The ancestry groups are generally much lower on the scale, with the exception of Poles and Italians. About one-third of the members of these two (single) ancestry groups would have to relocate to make for an even distribution across the neighborhoods of the city. By comparison, levels of segregation of multiple ancestry groups are quite modest.

In table 3 we can examine a multivariate aspects of segregation, and one which has a good deal of relevence to policy. Based on family

size and income the Census Bureau classifies families and persons within them as being above or below the poverty threshhold. These tabulations and the crosstabulation of poverty by race are available for census tracts and other geographic areas, so we can look at the interrelation of socioeconomic and racial segregation in metropolitan America. Tabulations of the index of dissimilarity, D, for segregation of families by poverty status give a value of D that is similar to that for other socioeconomic characteristics: on average, about one out of every three poverty families would have to move to be evenly distributed througout the SMSA. Consistent with a pattern we have observed for many variables, the largest cities have higher values of D, with Newark and Chicago over 50 percent. Tabulations of poverty segregation for female headed families separately (column 2) and on the basis of persons gives almost the same picture. The only noticeable difference is that the distribution of D for the female headed families is more compact, indicating basically that levels of differentiation that are linked to city size are much less noticeable.

We have broken down the classification of poverty status for persons by race (white, black, Indian, Asian) and also for Spanish Origin (independently of race) and calculated separate values of D for each. Some informative comparisons arise in looking across these five final columns of Table 3. In almost every metropolitan area the level of poverty segregation for whites is less -- often several points less--than segregation for the total population. We can see, then that the impact of racial segregation and higher indicence of poverty among the nonwhite population combine to increase the level of observed poverty segregation overall by several points. Also, once we control for race, the disparity

of total poverty segregation across the several SMSAs is reduced. (The standard deviation is at 5 vs 8 formerly.) In the larger cities with substantial nonwhite populations (Atlanta, Chicago, New Orleans, Newark) the value of D comes down more than 10 points. On average the level of poverty segregation for the black population separately is also reduced but the variability across cities is increased. Compared to the level of segregation for whites, D is lower among blacks in about half of the SMSAs for which it can be calculated. Several SMSAs with smaller fractions of blacks show very high levels of segregation on the poverty dimension. In this group of four cities mentioned above, levels of black and white poverty segregation are much more in line with one another.

When we look at the Indian and Asian population in the next two columns, we can observe a striking difference. Values of D are uniformly much higher than for whites or blacks, reaching into the 80s and 90s in several cases. (It should be born in mind that these calcuations are based on fewer total persons of the given race in the SMSA.) But even cities with substantial fractions of Indian and Asian population show higher levels of when compared to other races. Although small numbers make strong inferences fairly difficult, there is evidence that poor Asians and Indians live further apart from the nonpoor members of their own race than is the case for whites and blacks.

The case of poverty segregation for the Spanish Origin population (final column) is intermediate. In the average city about half of the poor hispanics would have to change residence in order for every census tract to have the same number of poor and nonpoor persons of Spanish Origin. In SMSAs which contain substantial Spanish Origin minorities

(Amarillo, Chicago, Newark, San Antonio, San Diego, Stockton) the level of segregation is lower than average.

To give some better sense of how racial differentiation compares to other characteristics collected by the 1980 census, we have calculated a segregation statistic based on alternative measure. This measure, the entropy statistic, is derived from information theory. It also varies between 0 and 100, but it easily handles polytomous variables such as race. (In general values of the entropy statistic H for a dichotomy are a little lower than D, but the correlation is on the order of 90 percent.)

Chart 2 arrays the average values of H for 24 characteristics, under four headings: socioeconomic status, life cycle, ethnicity, and housing. These classifications are necessarily a bit arbitrary but conform to conventional notions of the dimensions of urban residential differentiation.

There is no mistaking the sharp separation of the races in the American metropolis, a level of segregation outstripping most other attributes, except for the physical characteristics of the housing stock. Further, racial segregation serves to reinforce the separation of the poverty population, highlighting the degree to which poor members of minority groups are removed geographically as well as socially from the mainstream.

TABLE 1

DISSIMILARITY FOR RACE, SPANISH ORIGIN, AND NATIVITY: 21 SMSAS

SMSA	Race				Spanish Origin	Black within Spanish	Foreign Born
	Black	Indian	Asian	Other			
Allentown	58	41	35	60	55	44	24
Amarillo	72	26	44	42	40	77	37
Atlanta	77	31	38	34	22	78	32
Bangor	40	52	37	28	21	98	17
Birmingham	72	37	44	38	20	74	38
Boston	76	38	47	60	52	47	26
Chicago	86	42	49	64	62	71	40
Flint	85	27	40	31	26	72	24
Indianapolis	79	33	36	32	22	74	30
Lexington	59	37	44	36	19	68	35
New Bedford	56	44	29	50	38	44	38
New Haven	68	38	38	58	53	43	18
New Orleans	70	39	53	34	27	68	35
Newark	79	43	31	60	59	46	28
Saint Louis	82	29	38	29	20	81	31
Salt Lake City	54	32	23	37	33	57	25
San Antonio	59	24	39	32	56	57	25
San Diego	59	27	40	38	37	47	27
Seattle	66	27	37	25	16	58	22
Sheboygan	69	34	24	38	32	92	22
Stockton	56	18	37	34	33	53	27
MEAN	67.6	34.2	38.2	41.0	35.3	64.3	28.6
STDEV	11.9	8.0	7.5	12.3	15.1	16.3	6.7

Notes:

1. Index of Disssimilarity is measured as given group against all others.
2. Statistic is D for black vs. non-black within the population universe of Spanish Origin.

TABLE 2

DISSIMILARITY FOR SINGLE AND MULTIPLE ANCESTRY: 21 SMSAS

SMSA	English		French		German		Irish		Italian		Polish	
	Single	Multiple	Single	Multiple	Single	Multiple	Single	Multiple	Single	Multiple	Single	Multiple
Allentown	17	13	33	16	23	10	20	9	32	16	24	20
Amarillo	14	10	23	13	20	7	13	8	39	38	39	39
Atlanta	22	6	29	11	27	7	23	10	40	21	41	27
Bangor	17	8	20	11	17	13	15	7	23	26	34	32
Birmingham	25	8	36	16	28	9	24	10	45	27	56	43
Boston	22	11	32	15	24	18	24	9	35	17	29	24
Chicago	29	15	35	12	30	7	31	8	40	18	40	21
Flint	15	6	24	9	19	6	19	7	34	26	24	14
Indianopolis	17	7	27	12	17	5	17	7	31	26	37	30
Lexington	16	7	28	13	18	6	14	8	34	29	41	30
New Bedford	27	10	31	15	27	19	27	10	28	25	26	23
New Haven	23	12	24	11	18	9	17	8	31	16	20	14
New Orleans	24	15	30	11	28	7	28	9	34	17	50	35
Newark	30	14	39	16	29	7	27	8	34	15	34	21
Saint Louis	20	9	26	10	26	6	20	7	35	20	32	21
Salt Lake City	10	7	26	11	14	6	18	9	21	17	39	34
San Antonio	32	8	37	9	34	7	30	6	37	21	37	22
San Diego	15	7	20	8	14	6	16	6	24	14	24	19
Seattle	12	6	20	8	11	6	14	6	21	17	20	20
Sheboygan	17	10	24	13	14	6	22	8	33	26	17	9
Stockton	18	6	20	10	28	8	19	10	26	18	40	30
MEAN	20.1	9.4	27.9	12.0	22.3	8.3	20.8	8.1	32.2	21.5	33.6	25.2
STDEV	6.1	3.0	6.0	2.5	6.5	4.0	5.4	1.4	6.5	6.0	10.2	8.6

TABLE 3

DISSIMILARITY FOR POVERTY STATUS BY RACE: 21 SMSAS

SMSA	Family Type		Persons	Poverty for Persons by Racial Group and Spanish Origin				
	All Families	Female Headed		White	Black	Indian	Asian	Spanish
Allentown	31	36	29	28	40	.	86	52
Amarillo	35	39	33	29	21	93	44	35
Atlanta	40	41	39	27	32	57	63	54
Bangor	25	23	27	27	.	30	.	88
Birmingham	36	35	35	28	25	91	80	71
Boston	38	35	36	31	24	82	46	41
Chicago	52	41	49	36	34	64	56	33
Flint	35	30	34	29	27	66	65	55
Indianapolis	38	35	37	33	32	35	66	65
Lexington	32	34	31	28	31	.	67	72
New Bedford	30	28	30	29	50	.	80	36
New Haven	45	35	44	36	23	65	63	39
New Orleans	43	40	42	27	28	69	55	49
Newark	53	39	50	38	31	83	67	45
Saint Louis	44	36	43	31	29	83	77	68
Salt Lake City	26	27	27	25	65	54	58	40
San Antonio	39	38	38	39	34	73	63	26
San Diego	31	31	27	24	31	50	50	28
Seattle	28	31	27	25	29	54	47	52
Sheboygan	18	29	17	19	.	.	.	58
Stockton	30	30	28	25	29	67	42	29
MEAN	35.7	33.9	34.4	29.2	32.4	65.5	61.8	49.3
STDEV	8.8	4.9	8.1	5.0	10.1	17.9	12.8	16.6

CHART 1

MEAN INDEX OF DISSIMILARITY FOR
RACE, SPANISH ORIGIN, AND ANCESTRY: 21 SMSAs

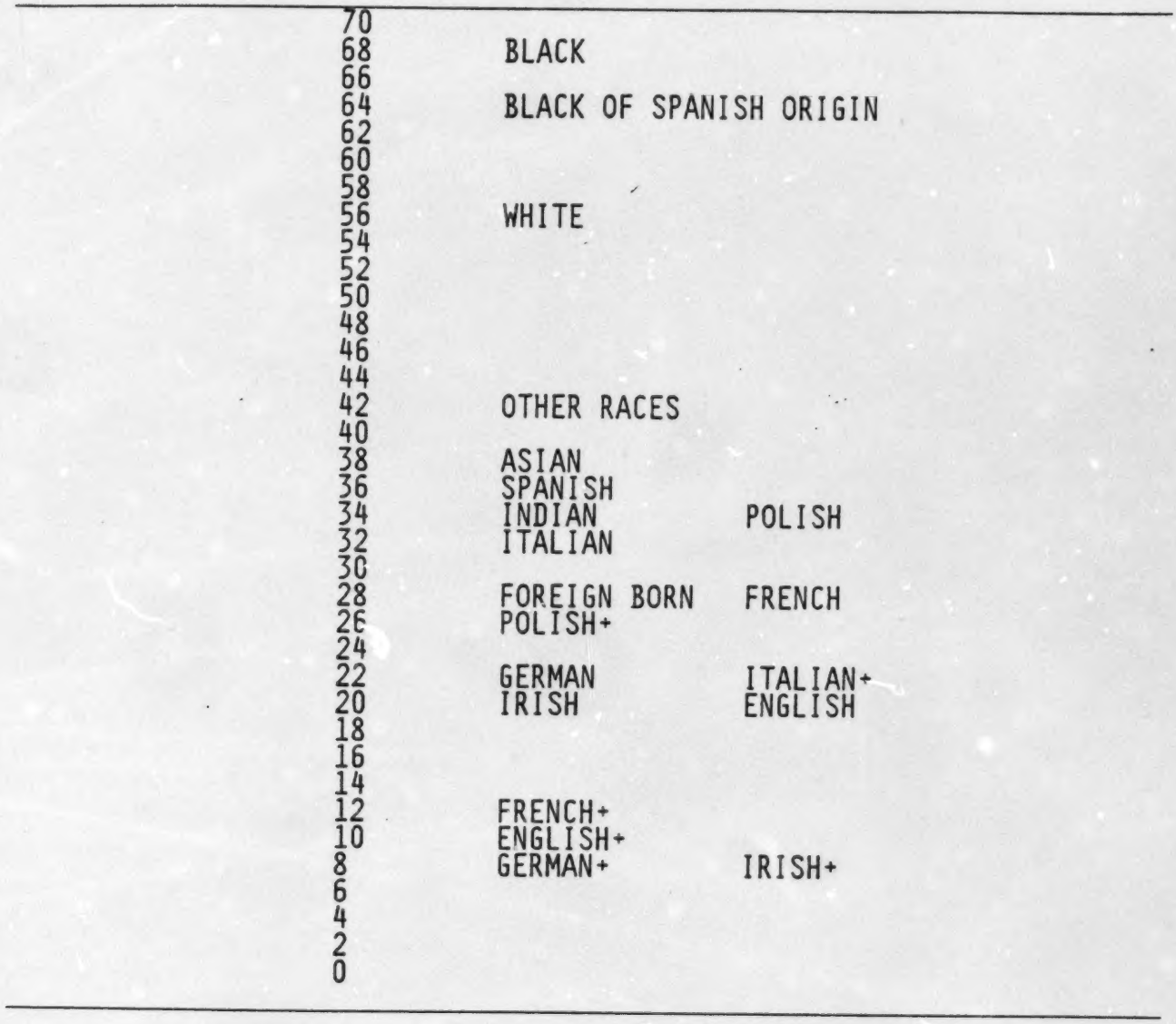

CHART 2

MEAN ENTROPY STATISTIC
FOR SELECTED CHARACTERISTICS

	SES	LIFE CYCLE	ETHNICITY	HOUSING & OTHER
50				
49				
48				
47				
46				HI-RISE
45				
44				
43				
42				
41				
40				
39				GROUP QTR
38				
37				
36				
35				
34			RACE	
33				
32				
31				
30				
29				
28				
27				
26				
25				
24				
23				
22	HOME VALUE			
21	RENT			HSE AGE
20				DENSITY
19				
18			RACE OF SPANISH	
17				TENURE
16				
15				
14	POVERTY-FEMHD			
13				
12			SPANISH	
11	POVERTY-POP			
10				
9				
8	EDUCATION	HOUSEHOLD TYPE		
7	INCOME			
6			NATIVITY	
5	OCCUPATION			MOBILITY
4		HOUSEHOLD SIZE	ANCESTRY-S	
3		MARITAL STATUS		
2		AGE		
1				
0		SEX	ANCESTRY-M	